

*The Role of Augmentin and
Amoxicillin Effects in the
Impacted Lower Third Molar
Surgery*

A Thesis

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Abstract

The purpose of this clinical study was to evaluate and compare the effect of the combination of Amoxicillin/Clavulanic acid and Amoxicillin alone on postoperative inflammatory complications (pain, swelling, trismus, and infection). A total of 60 healthy young patients requiring surgical removal of impacted mandibular third molars were attending the Department of Oral and Maxillofacial Surgery/ College of Dentistry/ University of Baghdad in the period from (January-2006 to September-2006) participated in a randomized, double blind, placebo controlled clinical trial.

Patients in the Augmentin treated group received combination of Amoxicillin/ Clavulanic acid tablets (500 mg/125mg), one and a half hour before the operation and thereafter 625 mg every 8 hours for 5 days.

Patients in the Amoxicillin treated group received Amoxicillin capsules (500 mg), one and a half hour before the operation and thereafter 500 mg every 8 hours for 5 days.

Patients in the placebo treated group have been given placebo (glucose capsules), one and a half hour preoperatively and thereafter every 8 hours for 5 days.

For ethical reasons, since a placebo has been incorporated in our study design, paracetamol tablets (500 mg) for seven days have been given as supportive medication and in order to eliminate the bias, they have been given for all the patients in this study.

Follow up visits took place in the 3rd and 7th postoperative days. The patients requested to attend the Department of Oral Surgery within the 24 hours after operation if he/she has any complain.

Pain has been assessed subjectively by the simple descriptive scale method, swelling has been assessed by the clinical grading system,

trismus has been assessed by a Willi's bite gauge measurement, while postoperative infection has been diagnosed by presence or absence of fever, intraoral abscess, dry socket, severe pain persisting or increasing after 48 hours or persisting to the 6th day accompanied by intraoral erythema and/or suture dehiscence.

Results showed that the prophylactic use of antibiotics has a significant effect on infection-related complications after surgical removal of mandibular third molar. The study reported that the therapeutic effect of Augmentin and Amoxicillin are comparable regarding their effects on the development of pain, swelling, and trismus and both of them are superior to the placebo. However, the clinical study registered that the age of the patient, gender, smoking, state of eruption, angulation of the impacted lower third molar, sectioning of the tooth during the operation and the amount of surgical removal of the bone dose not effect on the development of these clinical signs and symptoms whatever by using of these medications or not.